

**Tender Enquiry No. F.No.24/EQPT/14/2013-RIS (Admin)**

**TENDER NOTICE**  
**Digital X-Ray Machine and CT Scan**  
**AIIMS, Rishikesh**

Cost- Rs.1000

VAT- Rs.135

**Virbhadra Marg**

Total Cost-1135

Date: 19 July, 2013

On behalf of the Director, All India Institute of Medical Sciences, Rishikesh tenders in sealed cover are invited under **two-bid** system from manufacture and their authorised dealers/ distributors for providing for Digital X-Ray Machine and CT Scan for AIIMS Rishikesh.

The interested manufactures and their authorised dealers/distributors are required to submit the technical and financial bid separately. The bids in Sealed Cover-I containing "Technical Bid" and Sealed Cover-II containing "Financial Bid" should be placed in a third sealed cover super scribed "**Tender For Digital X-Ray Machine and CT Scan**" and should reach at the office of "**The Administrative Officer, AIIMS, Virbhadra, Marg Rishikesh (Dehradun) - 249201**", by or before 03.00 PM on **12-08-2013**. The bid received after due date and time will not be entertained whatsoever may be the reason. The technical bids shall be opened on the next day i.e **13-08-2013** at 11.00 AM at AIIMS, Rishikesh. In the event of any of the above mentioned date being declared as a holiday / closed day, the tenders will be opened on the next working day at the appointed time. The date of technical evaluation of items and opening of financial bid of technically qualified agencies will be announced later.

The tender document containing technical bid form, financial bid form, technical description/specification & item and terms & conditions can be purchased from AIIMS, Rishikesh from **22-07-2013 to 12-08-2013** between 10.00 AM and 02.00 PM on non-refundable payment of Rs.1135.00 (Rupees one thousand one hundred thirty five only) only or can be downloaded from website [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in). Those who download the tender document from website should enclose Demand Draft/Pay Order for Rs.1135.00 (Rupees one thousand one hundred thirty five only) (non-refundable) in favour of "**AIIMS, Rishikesh**", payable at Rishikesh, not later the date of **11-08-2013** along with their technical bid in the Cover-I "Technical Bid". The bid security (EMD) for **Digital X-Ray Machine and CT Scan** as given in table-1 of tender documents should be paid by FD/BG/TD/CD in favour of "**AIIMS, Rishikesh**" payable at Rishikesh and will be placed in cover-1 with technical bid. The Tender Documents are not transferable.

Any future clarification and/or corrigendum(s) shall be communicated through Administrative Officer on the AIIMS, Rishikesh website: [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in).

**Rakesh Kumar**  
**Administrative Officer**  
**AIIMS, Rishikesh**

Sign of bidder

**Tender Enquiry No. F.No.24/EQPT/14/2013-RIS (Admin)****TENDER DOCUMENT  
"Digital X-Ray Machine and CT Scan"  
TECHNICAL BID****(In separate sealed Cover-I super scribed as "Technical Bid")**

1. Name & Address of the manufacture and their authorised dealers/ distributors/Agency with phone number, email, name and telephone/mobile	
2. Specify your firm/company is a manufactures/ authorised dealer/ distributor/ Agency	
3. Name, Address & designation of the authorized person (Sole proprietor/partner /Director)	
4. Have you previously supplied these items to any government/ reputed private organization? If yes, attach the relevant poof. Please provide a notarised affidavit on Indian Non Judicial stamp paper of Rs. 10/- that you have not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&D rate in recent past. <b>If you don't fulfil this criteria, your tender will be out rightly rejected.</b>	
5. Please attach copy of last of Income Tax Return	
6. Please attach balance sheet ( <i>duly certified by Chartered Accountant</i> ) for last three (3) years (Annual minimum turnover should not be less than 20 Crore)	
7. PAN No. (Please attach copy)	
8. VAT/Service Tax Registration Number. (Please attach copy)	
9. Acceptance of terms & conditions attached (Yes/No). Please sign each page of terms and conditions as token of acceptance and submit as part of tender document with technical bid. Otherwise your tender will be rejected.	
10. Power of Attorney/authorization for signing the bid documents.	
11. Please submit notarised affidavit on Indian Non judicial stamp paper of Rs. 10/- that no case is pending with the police against the Proprietor/firm/partner or the Company (Agency). Indicate any convictions in the past against the Company/firm/partner. Please also declare that proprietor/firm has never been black listed by any organization.	
12. Please submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that they will provide complete warranty for all equipments for 2 (two) years & CMC for 5 (five) years of these equipments.	
13. Please furnished affidavit on Indian Non judicial stamp paper of Rs.10/- that they will supply spare part for next 10 years at reasonable price.	
14. Details of the FD/BG/TD/CD of bid security (EMD) FD/BG/TD/CD No:  Date:  Payable at-	Detail of cost of Tender for Rs. 1135/- (if downloaded from website) DD No. Date: Payable at-

Sign of bidder

**Tender Enquiry No. F.No.24/EQPT/14/2013-RIS (Admin)**

**Declaration by the Tenderer:**

This is to certify that I/We before signing this tender have read and fully understood all the terms and conditions contained herein and undertake myself/ourselves to abide by them.

- Encls:** 1. DD/Pay Order (if tender form is downloaded from the website of this Institute)  
2. FD/BG/TD/CD  
3. Terms & Conditions (each page must be signed and sealed)  
4. Financial Bid

**(Signature of Tenderer with seal)**

Place:.....

Name:

Date:.....

Seal:

Address

**Sign of issuing Authority**

**Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)****"For Digital X-Ray Machine and CT Scan"****AIIMS, Rishikesh****FINANCIAL BID****(In sealed Cover-II super scribed "Financial Bid")**

To,

Administrative Officer  
 AIIMS Rishikesh, Virbhadr Marg  
 Rishikesh (Dehradun)

Dear Sir,

Our quoted rate for supplying the Equipment at Sl. No..... " at AIIMS, Rishikesh will be as follows:

S/ No	Name of Equipment (As per table 1)	Unit Price (In Rs.) (Including all taxes & F.O.R AIIMS, Rishikesh With 2 years warranty and 5 years CMC)	
		(In figure)	( In words)
1			
2			
3			
4			

The unit cost should be mentioned as per table 1. The above quote should include all applicable taxes and F.O.R. AIIMS, Rishikesh. L1 will be decided on the basis of unit cost of individual equipment.

Sign of bidder

**Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

**Declaration by the Bidder:**

1. This is to certify that I/We before signing this tender have read and fully understood all the terms and conditions contained in Tender document regarding terms & condition of the contract, rules regarding purchase of equipment for Digital X-Ray Machine and CT Scan. I/we agree to abide them.
2. No other charges would be payable by Client and there would be no increase in rates during the Contract period.

**(Signature of Bidder with seal)**

Place:.....

Name:

Date:.....

Seal:

Address

**Tender Sl.No:**

**Sign of issuing Authority**

Sign of bidder

**Tender Enquiry No. F.No.24/EQPT/14/2013-RIS (Admin)****“Digital X-Ray Machine and CT Scan”,  
AIIMS, Rishikesh  
Terms & Conditions****(A) Information and Conditions relating to Submission of Bids**

1. The tender document containing eligibility criteria, scope of work, terms & conditions and draft agreement can be purchased from AIIMS, Rishikesh on any working day from **22-07-2013 to 12-08-2013** between 10.00 AM to 02.00 PM on payment of non refundable charges of Rs 1135/- (Rupees one thousand one hundred thirty five only) or can be downloaded from website [www.aiimsrishikesh.edu.in](http://www.aiimsrishikesh.edu.in). Those who download the tender document from Website should enclose a Demand Draft/Pay Order for Rs 1135/- (Rupees one thousand one hundred thirty five only) in favour of **“AIIMS, Rishikesh”**, payable at Rishikesh, not later the date of **11-08-2013**, along with their bid in the Cover-I containing “Technical Bid”.

2. The interested firms/supplier are required to submit the Technical and Financial Bids separately in the format enclosed. The bids in sealed Cover-I containing **“Technical Bid”** and sealed Cover-II containing **“Financial Bid”** should be placed in a third sealed cover super scribed **“Tender for Digital X-Ray Machine and CT Scan”** should reach AIIMS, Rishikesh by or before 03.00 PM on **12-08-2013**. The Technical bids shall be opened on next day i.e **13-08-2013 at 11.00 AM** at AIIMS, Rishikesh in presence of the bidders or their authorized representatives who choose to remain present. The Tender received after due date & time will be rejected and no claim shall be entertained whatsoever may be the reason.

3. The pre bid conference would be held on **02-08-2013 at 03.00 PM** in the office of Dy Director (Administration), AIIMS, Rishikesh. All firms representative who are attending the pre bid meeting, shall produce an authorisation letter from their firm on the firms letter head. They are required to put their query in writing before the committee.

4. All the duly filled/completed pages of the tender should be given serial /page number on each page and signed by the owner of the firm or his Authorized signatory. In case the tenders are signed by the Authorized signatory, a copy of the power of attorney/authorization may be enclosed along with tender. A copy of the terms & conditions shall be signed on each page and submitted with the technical bid as token of acceptance of terms & conditions. Tender with unsigned pages/incomplete/partial/part of tender if submitted will be rejected out rightly.

5. All entries in the tender form should be legible and filled clearly. If the space for furnishing information is insufficient, a separate sheet duly signed by the authorized signatory may be attached. No overwriting or cutting is permitted in the Technical Bid as well as Financial Bid unless authenticated by full signature of bidder. Any omission in filling the columns of Financial Bid form (Schedule of Rates) shall debar a tender from being considered. Rates should be filled up carefully by the tenderer. All Corrections in this schedule must be duly attested by full signature of the tenderers. The corrections made by using fluid and overwriting will not be accepted and tender would be rejected.

Sign of bidder

## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

6. The bidder shall pay the respective amount of Bid Security (EMD) as mentioned in table-I along with the Technical Bid by Demand FD/BG/TD/CD in favour of "AIIMS, Rishikesh" drawn on any Nationalized Bank/ Scheduled Bank and payable at Rishikesh and must be valid for (6) six month. Bids received without Earnest Money deposit (EMD) shall stand rejected and thus shall not be considered for evaluation etc at any stage. The original EMD will be put in cover-I containing Technical bid.

- a) The Public Sector Undertaking of the Central/State Govt. are exempted from furnishing Earnest Money along with tender.
- b) The firms Registered with DGS & D/SSI and any approved source of Centre/States Govt. are not exempted from furnishing Earnest Money in so far as this institute is concerned.
- c) Earnest Money deposited with AIIMS, Rishikesh in connection with any other tender enquiry even if for same/similar material / Stores by the tenderer will not be considered against this tender.

7. The bid security (EMD) without interest shall be returned to the unsuccessful bidders after finalization of contract.

8. The successful bidders has to constitute a contract on Indian non judicial stamp paper of Rs.100/- (Rupees one hundred only) and also required to furnish the security deposit @ 10% of contract value in the form of FD/BG/TD/CD of any nationalised bank in favour of AIIMS, Rishikesh & payable at Rishikesh only. The EMD deposited by successful bidder may be adjusted towards Security Deposit as demanded above. If the successful bidder fails to furnish the full security deposit or difference amount between Security Deposit and EMD within 15 (fifteen) days after the issue of Letter of Award of Work, his bid security (EMD) shall be forfeited unless time extension has been granted by AIIMS, Rishikesh.

9. The EMD shall be forfeited if successful bidder fails to supply the goods/equipment in stipulated time or fails to comply with any of the terms & conditions of the contract or fail to sign the contract.

10. The bid shall be valid and open for acceptance of the competent authority for a period of 180 (one hundred eighty) days from the date of opening of the tenders and no request for any variation in quoted rates and / withdrawal of tender on any ground by bidders shall be entertained.

11. To assist in the analysis, evaluation and computation of the bids, the Competent Authority, may ask bidders individually for clarification of their bids. The request for clarification and the response shall be in writing but no change in the price or substance of the bid offered shall be permitted.

12. After evaluation, the work shall be awarded normally to the Agency fulfilling all the conditions and who has quoted the lowest rate as per financial bid after complying with the all the Acts / provisions stated / referred to for adherence in the tender.

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13. The competent authority of AIIMS, Rishikesh reserved all rights to accept or reject any/ all tender(s) without assigning any reason. It can also impose/relax any term and condition of the tender enquiry after due discussion in pre bid conference. This will be communicated to all tenderers in writing. AIIMS, Rishikesh also reserves the right to reject any bid which in his opinion is non-responsive or violating any of the conditions/specifications without any liability to any loss whatsoever it may cause to the bidder in the process.

14. Tender must be submitted on the prescribed Tender Form otherwise tender will be cancelled straightway.

15. The tender form is not transferable.

16. Canvassing in any form is strictly prohibited and the tenderer who are found canvassing are liable to have their tenders rejected out rightly.

### **(B) OTHER TERMS & CONDITIONS OF THE TENDER**

1. Rates quoted should be inclusive of all applicable taxes, packing, forwarding, postage and transportation charges at FOR AIIMS Rishikesh.

2. All the rates should be mention in Indian national currency (INR) only. The rates quoted in foreign currency will not be entertained in this tender enquiry & such tenders will be cancelled straightway.

3. Rates should be mentioned both in figures and in words. The offer should be typed or written in Ink Pen/ Ball Pen without any correction. Offers in pencil will be cancelled. Telegraphic/ Telex/ Fax offers will not be considered and cancelled straightway.

4. The supplier shall submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that you have not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&D rate in recent past. Therefore, if at any stage it has been found that the supplier has quoted lower rates than those quoted in this tender, the Institute (the purchaser) would be given the benefit of lower rates by the Supplier. **If such affidavit is not submitted, tender will be out rightly rejected.,**

5. If the price of the contracted articles is/ are controlled by the Government, in no circumstances the payment will be higher than the controlled rate.

6. Tender will be regarded as constituting an offer open to acceptance in whole or in part at the discretion of the competent authority of the institute for a period of 180 days (6 months) valid from the date of opening of the tender by the committee.

7. The time for the date of delivery/ dispatch stipulated in supply order shall be deemed to be essence of the contract and if the supplier fails to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch in the supply order, liquidated damages may be deducted from the bill @ 0.5% per week subject to maximum of 10% of the value of the delayed goods or services under the contract. The competent authority of the institute may also cancel the supply. In such a case, bid security of the supplier shall stand forfeited.

Sign of bidder



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8. In case the quality of goods supplied are not in conformity with the standard given in tender and as per the samples supplied or the supplies are found defective at any stage these goods shall immediately will be taken back by the supplier and will be replaced with the tender quality goods, without any delay. The competent authority reserves all rights to reject the goods if the same are not found in accordance with the required description / specifications and liquidates damages shall be charged.

9. In case the tenderer on whom the supply order has been placed, fails to made supplies within the delivery schedule and the purchaser has to resort risk purchase, the purchaser (AIIMS, Rishikesh) may recover from the tender the difference between the cost calculated on the basis of risk purchase price and that calculated on the basis of rates quoted by tenderer. In case of repeated failure in supplying the order goods the supply order may be cancelled and bid security deposit will be forfeited.

10. The Specification and quantity of the item needed is mentioned in **Table-I** but it is approximate detail and is subject to increase/decrease at the discretion of the competent authority of AIIMS, Rishikesh. The payment would be made for actual supply taken and no claim in this regard should be entertained.

11. Where the specifications are as per tenderer's range of product & tenderer's offer should mention that the item meets all specifications as per the tender enquiry and if there are improvements/deviations the same should be brought out on separate Letter Head of the firm. It would be discretion of the competent authority of the institute to accept or reject such deviations which are not in accordance with our required specifications as per given in **Annexure-I**.

12. It must be mentioned clearly whether tenderer is a manufacturer/sole distributor/sole agent for the items for which he is quoting.

- a. **Manufacturer** must add a certificate that item(s) is manufactured by them as per range of products.
- b. **Sole Manufacturers** must add a certificate that they are the sole manufacturer of the Item for which they are quoting in this tender enquiry & item is /are their proprietary Item in India. The rate certificate is also required from the sole manufactures that the Rates quoted are the same as they quote to other State/Centre Govt./reputed Private Organisation and DGS & D for the similar item(s) and these are not higher than those quoted by them.
- c. **Authorized agents** must add authority letter from their Manufacturer/Principals on the letter head of the manufacturer/principals in proforma given in Annexure-I duly supported by a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- (Rupees ten only) that they are quoting Rates on behalf of them. The authorization letter must give/mention the purpose for which it is allowed. The validity period of the authorization letter must be mentioned in the authority letter otherwise tender will be liable to rejection.

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13. The Tenderers should furnished a copy of **S.T. /C.S.T./VAT registration number**, the **State / U.T. of registration** and the date of such registration. Tenders not complying with this condition will be **rejected**.

14. The tenderers should submit along with the tender, a photostat copy of the last Income Tax return and copy of current valid income tax clearance certificate (IT CC) otherwise tender may be ignored.

15. In case asked, tenderer must personally supply a sample/give the demonstration of the **equipments/Instruments** to the competent authority of the institute and in that case all the expenses will be borne by the supplier.

16. Full description & specifications, make/brand and name of the manufacturing firm must be clearly mentioned in the tender failing which the tender will not be considered. The tenderer must also mention whether the goods are imported / indigenous. Descriptive literature / catalogues must be attached with the tender in original failing which tender may be ignored.

17. Any failure or omission to carryout of the provisions of this supply by the supplier shall not give rise to any claim by supplier and purchaser one against the other, if such failure or omission arise from an act of God which shall include all acts of natural calamities from civil strikes compliance with any status and or requisitions of the Government lockout and Strikes, riots, embargoes or from any political or other reasons beyond the suppliers control including war (whether declared or not) civil war or state of incarceration provided that notice of the occurrence of any event by either party to the other shall be within two weeks from the date of occurrence of such an event which could be attributed to force majeure.

18. The Courts at Rishikesh/ Dehradun alone and no other Court will have the jurisdiction to try the matter, dispute or reference between the parties arising out of this tender/supply Order/contract.

19. Tenderer will have to provide complete warranty for all equipments for 2 (two) years & CMC for 5 (five) years of these equipments. Financial bid should be quoted accordingly. In this regard, the tenderer shall submit a notarised affidavit on Indian Non Judicial Stamp Paper of Rs.10/- that they will provide complete warranty for all equipments for 2 (two) years & CMC for 5 (five) years of these equipments.

20. If at any time, any question, dispute or difference whatever shall arise between supplier and the institute (Purchaser) upon or in relation to or in connection with the agreement, either of the parties may give to the other notice in writing of the existence of such a question, dispute or difference and the same shall be referred to two arbitrators one to be nominated by the institute (Purchaser) and the other to be nominated by the supplier. Such a notice of the existence of any question dispute or difference in connection with the agreement shall be served by either party within 60 days of the beginning of such dispute failing which all Right sand claims under this Agreement shall be deemed to have been forfeited and absolutely barred. Before proceeding with the reference the arbitrators shall appoint/nominate an umpire. In the event of the arbitrators not agreeing in their award the Umpire Appointed by them shall enter upon the reference and his award shall be binding on the Parties. The venue of the arbitration shall be at Rishikesh, (Uttarakhand, India). The arbitrators/Umpire shall give reasoned award.

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21. Tenderer should ensure and give an affidavit on Indian Non Judicial stamp paper of Rs.10/- with technical bid that spare parts and consumables for these equipments/instruments will be available and rates will be reasonable for next 10 (ten) years.

I / We hereby accept the terms and Conditions given in the tender

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(Signature & Stamp of the bidder)

*Note- Please sign each page of document including terms & conditions & tender*

Sign of bidder

**F.No.24/EQPT/14/2013-RIS (Admin)****Table 1****Details of items their tentative quantity and EMD**

<b>Name of the Items</b>	<b>Quantity</b>	<b>EMD (In Rs.)</b>
Digital X-Ray Machine	1	2.31 Lacs
CT-Scan	1	12.31 Lacs

## Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)

### ANNEXURE -I

#### Sl.                    Tender Specification

#### **Tender Specifications for Direct digital flat panel Radiography system 80 KW-100mA unit with two Flat panel detectors**

Fully digital radiography system with proven two Flat panel detectors with Cesium Iodide Scintillator and the system with Automatic Exposure control (AEC) capable of performing exposure in vertical, horizontal and oblique positions to perform all skeletal body (Upright and Lying down) radiographs. The unit should be completely integrated (X-ray Generator and tube should be same manufacturer) along with auto features in quality control & performance, AEC, APR, Auto position of detector for under couch & vertical studies

Mention the year of introduction of the quoted model in the International market and the quoted Model should be latest state of Art technology

#### **A) Detailed Specification of X-Ray Flat Panel Detectors (Quote the latest model of flat panel detectors)**

Note : Specifications to be supported by compliance statement, Technical Data Sheet of detector and any additional information from the seller

- 1 Use of matrix flat panel imager (Radiography)
- 2 Name of the Detector model and manufacturer : To be provided by the firm
- 3 Assembling : Monolithic panel
- 4 Active Matrix Flat Panel detector : Based on Indirect Conversion process
- 5 Scintillate material used for flat panel detector : Thallium doped Cesium iodide (Csi:TI)
- 6 Semi Conductor material (Photodiode) : Amorphous Silicon
- 7 Charge Read Out : Thin Film Transistor (Array) (TFT Array)
- 8 Detector Size : 41 cm x 41 cm or more
- 9 Array Size : 2000x2000 pixel or more
- 10 Pixel Pitch : 0.2 mm or less
- 11 Image depth : 14 Bits or more
- 12 Wide Dynamic Range of Flat Detector
- 13 Detector Quantum Efficiency (DQE) : more than 68% @ 0 lp as per IEC standard
- 14 Tube assembly movement to be automatically synchronized with both the horizontal and vertical detectors movement
- 15 Two Digital flat panel detector systems with detector integrated into the Bucky table as well as wall stand
- 16 Mention the weight of the detector
- 17 Mention the detector assembly size (HxWxD cm)
- 18 Mention the estimated life of the detector
- 19 Mention any other version of indirect flat panel detector (Model available)
- 20 System warm up time should be minimum
- 21 Important : Option should be available for the system to be independently used for film screen and computed tomography

#### **B Specification of Acquisition / Review Workstation :**

- 20 Monochrome LCD monitor with protect panel from dust and scratches
- 21 Manufacturers name and model :
- 22 Viewing angles (H, V) : 170 Deg. Or more
- 23 Size of Monitor (diagonal) 19" or more
- 24 Mouse control display
- 25 Mention all the standard accessories to be supplied with the monitor
- 26 Hard disc storage : 70 GB or more storage of 3000 or more images
- 27 Past Acquisition, Image processing and Display : Mention the time

#### **C X-Ray Table Specification :**

- 28 Motor driven,Adjustable height floating top compact bucky table with digital flat panel detector

Sign of bidder

## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

- 29 Compact bucky table with digital flat panel detector
- 30 Mention range of vertical, horizontal and longitudinal movements of the table
- 30 Removable grid for SID of 100 cms for horizontal table applications
- 30 Four way floating horizontal table top of equivalent to carbon fiber table top
- 31 Maximum patient weight - 200 kgs or more
- 32 Table Top length : 200 cm or more
- 33 Foot switches for – adjusting height, longitudinal/side to side movements, locking, light adjustment

### **D Vertical Stand**

- 33 Vertical movement : Motorized with foot switch facility
- 34 The vertical movement to be servo coupled to the movement of the X-Ray tube (simultaneous movements)
- 35 Standard removable focus grid (minimum two) mention the number of lines / cm and Grid Ration
- 36 Motorized detector tilting facility with either IR remote or handswitch control required
- 37 Removable grid for vertical bucky applications
- 38 Height to detector panel (center) from the floor should be minimum 30 cm
- 39 Maximum height from the floor to the center of detector should be more than 175 cm

### **E Ceiling Mounted X-Ray Tube**

- 39 X-Ray tube suspended on a telescopic column
- 40 The movement of X-Ray tube should be motorized and movement in all possible directions : Specify the travel range and angulations in degrees
- 41 It should have capability of manual override
- 42 Provision for patient side control panel

### **44 X-Ray Generator Specification**

- 45 Invertors Type Constant Potential high Voltage Generator (High Frequency X-Ray Generator)
- 46 Power : 80 KW
- 47 800mA at 100 kv according to IEC standard
- 48 Automatic exposure control with 3 or 4 chambers

### **G X-Ray Tube (Specification)**

- 47 Anode Heat storage capacity 300 KHU or more
- 48 Mention the name of the X-Ray tube
- 49 Specify the heat storage capacity of the whole tube
- 50 Specify the cooling rate of the anode and Tube
- 51 Inherent filtration with aluminum

### **H Accessories**

- 51 Compression belt (Pediatric and adult) (1 to 2 each)
- 52 Patient hand grip
- 53 Foot switch for adjusting the height of the stand or the table
- 54 Lateral cassette holder
- 55 Patient support bar for vertical stand
- 56 Lead Glass 80 cm x 100 cm
- 57 Table top locking facility
- 58 Specify any stabilizer required for the system
- 59 UPS of appropriate rating (with half hour back up) for the acquisition / review workstation and 2nd monitor (if supplied with the system) of reputed brand

### **F Advanced Clinical Application Facility :**

- 60 Auto Image stitching / image pasting for complete spinal column, extra long leg image etc.,(sample Films of the same has to be enclosed in technical bid, Indian Hospital Name has to be embedded on the film)
- 61 Specify the maximum number of images which can be pasted together for different organs..Provide all the details and technical aspects
- 64 Dual energy subtraction facility (quote as standard)

Sign of bidder

## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

### **J Post Processing Facility should be available like**

- 65 Addition of Anatomical markers
- 66 Demographic Correction
- 67 Image Annotation
- 68 Window and Level adjustment
- 69 Electronic Collimation
- 70 Magnification
- 71 Application of different LUT's
- 72 Any other facility available (Please mention)

### **K Networking (Specification)**

- 73 Patient data entry : His / RIS, Keyboard and mouse or bar code reader
- 74 The system should be capable to connect to PACS through RIS/HIS
- 75 DICOM 3.0 or higher version with
  - a. Modality push
  - b. Modality work list
  - c. Print service
  - d. PACS Push
  - e. Performed procedure step
  - f. PACS confirm storage
  - g. Modality pull
  - h. PACS full
  - I. Modality Verification
  - j. Storage of image on CD/DVD
  - k. Ability to send, receive, acknowledge, print and record on CD/DVD
  - l. Connectivity to PC
  - m. Mention any other Service

### **M Other Terms and Condition**

- 76 Some specification which are not qualified, the buyer reserves the right to evaluate the specification based on the details given by the firm
- 77 The equipment should be under comprehensive warranty for 2 years from the date of successful installation and handing over with an extension of another one year as optional
- 78 Please quote Comprehensive maintenance Contrast (Including X-Ray Tube and detector) for 8years after successful completion of warranty
- 79 All software up-gradation will be provided free of cost to the institute as and when available
- 80 Operating manual, service manual along with schematic diagram to be provided
- 81 There will be an agreement between the buyer and seller for comprehensive maintenance contract at the time of finalization of purchase of equipment
- 82 Only principal or their authorized principal agents should participate in the tender.
- 83 Company should provide adequate application training of at least one week to the Consultant Radiologists / Operators
- 84 All the civil, Electrical alternation / fixation pertaining to the installation of the machine will be the responsibility of the firm

### **N Accreditation and Quality Certification**

- 85 3 major components of the Digital Radiography system (Detector, Tube and Generator) out of 2 components mandatorily Generator & tube should be from the same manufacturers
- 86 The quoted model should be AERB type approved and CE & US FDA certified
- 87 The Participant company must have minimum turnover of Rupees Twenty Crore per year from the said business for the last three financial years
- 88 The Bidder must have been in business of Flat Panel Detector equipment supply/installation for the last 3years. Should have experience of at least five installation per year for the last consecutive three years  
2 yrwarranty& 5 yr CMC should be included with provision of supply of spare parts of the model supplied for next 10years

Sign of bidder

## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

Specifications for 64 slice CT machine

A complete multislice helical CT scanner with all necessary software & hardware required to perform various clinical protocols. It should be DICOM ready with capability of transferring images to the hospital PACS, all cost born by company. The software upgrades or system improvement must be provided during warranty period and CMC.

The vendor should indicate & include recent any technological advances that are mentioned here but are appropriate for the system.  
Describe all work in progress.

Detector

Detector should acquire 64 slice in one rotation  
It should have 64 rows of detectors

Please specify the number of elements in each row.  
Mention the Z axis coverage.  
The scan length available should at least be 40cm.  
Indicate the maximum reference scan length.  
Cone beam correction should be present  
Solid state detectors.

Spiral Acquisition

- a) Scan time should be 0.4 sec. or less, for full 360 deg. rotation.
- b) Specify time in minutes for warm up from fully off in normal as well as emergency.
- c) Minimum slice thickness 0.625 mm. or less. Specify minimum slice thickness in axial, spiral and cardiac modes.
- d) Specify the pitch factor for general radiological application. For cardiac scanning pitch should be 0.2 or less
- e) Single continuous spiral scan time should be at least 50 sec. or more.
- f) Bolus triggered or bolus chase spiral acquisition should be available.

Contrast Resolution :

- a) High contrast spatial resolution : Minimum of 15 or more lp/cm at minimum MTF is essential.
- b) Low contrast resolution : The low contrast resolution at 20 cm CATPHAN phantom should be 5mm @ 3 H.U.

Gantry

Gantry aperture should be 70 cm or more  
Gantry tilt of +/- 30 degree.  
Scan FOV of 50 cm or more. Specify minimum and maximum FOV with increment value. integrated ECG, remote control of gantry should be possible.  
3D laser lights for accurate centering.  
Specify focus to iso centre distance and focus to detector distance.

Patient table

Mention loading capacity : higher will be preferred.  
Faster horizontal table speed.  
Indicate couch length .Table top must be 2000 mm .Mention the metal free scannable area.  
Indicate weight limit & Maximum weight capacity.  
Carbon fibre table top.  
Positioning facilities for horizontal isocentre should be present.  
Freely selectable pitch needed.  
Slice thickness should be minimum of 0.625cm  
Mention slices thickness range on spiral mode or axial mode.  
Horizontal movement range and it should be sufficient to cover the patient from head to toe.

Tube specification.

The tube should have a history of low tube failure rate.  
Tube should have ability to handle high patient through put & handle rapid volume acquisitions consecutively.  
Indicate maximum mA allowed . Indicate the Kvp range  
mention heat storage capacity ( 8MHU)  
mention heat dissipation rate of anode ( 1600KHU/mm)  
radiation does modulation & optimization should be provided.  
Mention the small and large focal spot size.

Sign of bidder



## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

### **Generator**

High frequency generator

A Minimum output of 60 KW at max current of 500mA more. if the vendor has a model with higher generator capacity , in the 64-64 type, the one with higher capacity should be quoted .

Mention kv selections. mA range should be mentioned.

### **Operator console**

Should have a LCD medical grade monitor of high resolute.

21" inch size

display matrix of 1024 x 1024 , better is preferred

Should allow scanning and processing simultaneously -dual, monitor console

User friendly

menu driver functions.

all function of the image reconstruction, documentation , archiving , transfer, mip, volume rendering and all the various application should be present on the operating console and two separate work stations simultaneously and independently.

performing scan of next sequence should start prior to complete reconstruction of previous scan.

Should be DICOM compatible

One console and two separate workstations with replication of the soft functions and post processing software's from the console duplicated on the workstations should be provided.

Minimum number of uncompressed image in 512 x512 images : 5 lac images or more on main console and 5 lac on more or additional workstation.

### **Radiation and specification and image quality**

indicate the maximum image resolution

mention the display matrix - higher available should be quoted

mention the reconstruction matrix - higher available should be quoted

Indicate low contrast resolution in % at various scan time ; scan thickness and tube voltage, ma

Indicate special resolution at various scan time and scan thickness at available kV and ma.

Indicate the noise standard deviation

Indicate radiation dose in mSv for routine head and body scan and during coronary CT.

Dose optimization software should be provided.

Describe in detail the method and the maximum amount of dose reduction that can be advised tabulated for various possible studies.

ECG gated dose modulation to reduce dose during undesired cardiac phase

Dose display like CDTI, volume, dose efficiency should be possible

dynamic tube current modulation and automatic optimized tube current selection for minimizing dose should be provided.

Algorithm for dose reduction during cardiac scanning will be an essential requirement.

Paediatric and infant based protocols.

### **Work station**

System should include two multimodality diagnostic reporting work stations , all the function of data processing, filming , archiving, mip and mpr, volume rendering and various software's, coronary processing should be available on both the operating console and the work station, independently and simultaneously.

all functions which are possible on the console should be duplicated on both the work stations

High transfer rate DICOM connectivity from main console to additional workstation.

All workstation software upgrades should be available during period of warranty and CMC

They should have 21 inch LCD monitors with high resolution matrix (mention matrix size)

Computer and image processor - 65 bit main CPU should be 2GHZ ram or better

Pentium i 7 CPU with 1tb hard disc mention image storage capacity at 512 matrix, 4lac images minimum, higher is needed.

CD/DVD archival should be possible mention image reconstruction time, faster will be preferred for all types of acquisition modes with a standard 512 matrix.

Should be DICOM compatible

Minimum number of uncompressed image in 512 x 512 images : 5 lac images or more on main console and 5 lac or more on additional workstation

### **Networking and dicom capability**

Dicom 3.0 capability or higher version

System should be capable of interfacing with the HIS/RIS system of the status

vendor should provide DICOM conformance statement

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## **Tender Enquiry No- F.No.24/EQPT/14/2013-RIS (Admin)**

All costs associated with connecting system with HIS/RIS will be vendor's responsibility (interfacing licenses software and hardware)-pacs interface ready.

The system should provide remote diagnostic capabilities via internet access. The internet access should be provided by the vendor during the period of warranty and CMC

the remote diagnostic capabilities should allow to remotely connect to the system on regular basis to retrieve information and allow service support through the operator console

PACS interface ready system.

### **Clinical application**

Contrast media tracking

CT angiography /venography whole body with quantitative vessel analysis

advanced 3d analysis

virtual endoscopy software

dynamic cerebral perfusion mapping along with angiography at single injection. Neuro perfusion /Evaluation with Neuro perfusion analysis over large area of 80 mm or more in one examination.

Routine body scan and body perfusion CT

Bone densitometry

dental / mandible software MIP,MPR

Oncology Package including computer assisted detection:

a) Auto CAD software for lung nodule evaluation.

b) automated evaluation of liver.

Volume rendering techniques in all modes

virtual colonoscopy ,SSD

MIP slab

Cardiac imaging

1. calculi/m scoring

2. coronary tree extractions

3. High image reconstruction software

4. prospective ECG gating

5 . Easy volume reading of the heart

6. one click coronary angio

7.Functional analysis in long and short axis of heart

Indicate the time and steps to run entire protocol - acquisition to post processing to archiving

### **Image Evaluation and display**

In addition to the software for all routine functions like measurements, annotations, windowing, image addition and subtraction, artefact reduction capability, reversal of images, filters, reference scale and grid, the following software should also be available:

a) Real time MPR ( curved /Oblique/coronal/sagital).

b)Dynamic scanning and cine display specify the frame and number of images that can be displayed.

c) 3D shared surface display.

d)advanced 3D volume rendering technique.

e) C.T. Angiography with coloured facility: MIP MPR, SSD, VR

f)3D Virtual endoscopy (CT endoscopy, bronchoscopy, colonoscopy, colonography and angioscopy)

g)Automatic bone sulpting.

h) Advanced vessel analysis including stenosis quantification

### **Upgradability**

All software upgrade on the system console workstation on the existing applications must be provided by vendor indefinitely at no cost.

This will include any hardware or parts if the software added needs them to enhance the existing capabilities .

New software shall be made available to the purchaser at 70% of discounted cost of the cost of the actual listed price for a period of the CMC and warranty free trial software should be enlisted and provided at the users request.

### **Accessories :**

A list of accessories should be provided separately.

All patient positioning accessories should be included

Dual head pressure injector with 500 syringes and 1000 y tubings

UPS for entire ct system with 30 minute backup. this should also include the workstation and console, at least of 120 KVPS.

Dry camera ( Laser /thermal ) of 500 dpi which can print 14 & film size with digital interface.

1. Resolution - 16 bits/500 dpi

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2. supports multiple film size -14"x 17" is must  
 3.Throughput of 100 films or more per hour  
 4. DICOM compatible.  
 5.Company should connect the machine with existing cameras in the department for alternate recording.  
 6. Company should supply 2000 films of -14"x 17" size for the supplied camera for testing and initial use.  
 A. colour ink jet printer for printing images of the coronary scan which allows low cost printing .  
 Anesthesia equipments ; - These equipments should allow anesthesia to adults and pediatric patients and should have all the necessary attachments for the same. These may be certified and verified by the concerned expert.  
 2 high end class 1 Boyle's apparatus (anesthesia delivery system with a multiparameter monitor equivalent CE /ISO /US-FDA certified system.)  
 A state of art general anesthesia induction equipment with vaporizer capable of co2 monitoring with a pediatric and adult ventilator and monitors.  
 Facility for non invasive monitoring of oxygen saturation blood pressure, respiratory rate and skin temperature during acquisition should be provided for both adult and pediatric patients.  
 External cardiac rhythm monitor cum defibrillator with capability for synchronized biphasic shock from 5-150 joules. the device should have adult and pediatric pedals and also connectivity to patch defibrillation electrode. it should reach full charge in less than 6 seconds. it should also have external pacemaker facility.  
 O2 line to gantry room. waiting room and the recovery area.  
 A high quality DLP p projector 3000 ANSI Lumens and digital zoom facilities for teaching and presentations related to CT images. the projector should have wireless wifi data transmission and USB ports.  
 Voltage stabilizer for the complete system -1 no.  
 UPS for digital part of the system 1 no.  
 Lead glass of approx 100 \* 120 cms size 1 no.  
 3 good quality zero lead wrap around radiation protection apron- 5nos.  
 Pentium i 7 processor based pcs with following specification - two  
 3 gb necc ddr2800mhz sdram memory  
 500gb sata 3.0 gb/s hard drive with native command queuing  
 2\*1 tbb sata 3.0 gb/s hard drive with native command queuing.  
 19 'LCD Monitor with integrated speaker  
 integrated intel graphics media accelrator \* 4500hd  
 windows 7 professional version.  
 dvd rw drives  
 optical mouse and standard keyboard  
 two inkjet printers with low maintenance and low cost consumption  
 qc phantoms  
 CATPHAN should be included  
 water phantom should be included  
 intercom for communication between patient and system operator  
 two iv stands  
 two led apron stands a weighing scale  
 a room thermometer  
 one stretcher and one wheel chair to move patients  
 indicator lamp at the door

### Miscellaneous Radiation Safety :

Company should observe all the norms laid down by A.E.R.B, during supply and installation, which include certification of the whole system and permission for installation.

Warranty for five (5) Years

The cabling from the transformer to the site of installment should be provided by the company.

### CMC :-

Should include the machine and its accessories, the tube and detectors, other components of the machine, UPS, computers printers, air conditioner,s pressure injectors and anesthesia equipment supplied along with the machine. Maintenance of the dry camera, computers, printers, cartridge or ink supplies, antivirus software and their up gradation and the setting up and maintenances of internet connection should also be included in the CMC.

The prices of films used in the dry camera (Which are proprietary items) for all

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the present and future models of the supplying companies should be quoted in the price bid. These prices will be fixed and frozen for the next five years. The companies will also be bound to supply these films uninterrupted at least for the

5 years period after supply of machine or till the period the prices are frozen.

The DATA sheet for the specifications in original or a certified copy of the same by the appropriate company authority should be provided.

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**ANNEXURE- II**

**MANUFACTURER'S / PRINCIPAL'S AUTHORIZATION FORM**

(Clause 12 (c) of the tender)

To

The Administrative Officer,  
All India Institute of Medical Sciences  
Rishikesh

Dear Sir,

TENDER:

\_\_\_\_\_  
we, \_\_\_\_\_, who are established and  
reputable manufacturers of \_\_\_\_\_, having factories at  
\_\_\_\_\_ and \_\_\_\_\_, hereby authorize Messrs.  
\_\_\_\_\_ (*name and address of agents*) to bid, negotiate  
and conclude the contract with you against Tender No. \_\_\_\_\_  
for the above goods manufactured by us. No company or firm or individual  
other than Messrs. \_\_\_\_\_ are authorized to bid,  
negotiate and conclude the contract in regard to this business against this  
specific tender.

We hereby extend our full guarantee and warranty as per the conditions of  
tender for the goods offered for supply against this tender by the above firm.

The authorization is valid up to \_\_\_\_\_

Yours faithfully,

(Name)

For and on behalf of Messrs. \_\_\_\_\_

(*Name of manufacturers*)/Principal.

Sign of bidder